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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,790

03/21/2006

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11/23/2007

EXAMINER

UNDERDAHL, THANE E

ART UNIT

PAPER NUMBER

1651

MAIL DATE

DELIVERY MODE

11/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/572,790		CASSIER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Thane Underdahl		1651	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-4 and 6-49 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

Due to Applicant's extensive amendments from the previous restriction received 8/27/07 additional restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted. The groups and the claims they include are as follows:

Group I, claim(s) 1-4, 6-13, 16-23, 37-43 and 49 are drawn to a composition comprising of ascorbic acid or its derivatives or salts and an oxygen-utilizing ascorbate oxidase along with at least one cosmetic ingredient.

Group II, claim(s) 1, 14-15 and 44-48 are drawn to the composition listed above with the additional limitation that the ascorbate oxidase is immobilized.

Group III, claim(s) 24-29 are drawn to a method of preparation of a composition of ascorbic acid and ascorbate oxidase that further comprises an oxygen component.

Group IV, claim(s) 30-33 are drawn to a method of oxidative treatment of keratin using a composition similar to that in Group I.

Group V, claim(s) 34 is drawn to a method of hair shaping using a composition similar to that in Group I.

Group VI claim(s) 35-36 are drawn to a method of forming permanently waving hair with the compositions similar to that in Group I.

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(a) An international or national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those invention involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the **CLAIMED INVENTIONS, CONSIDERED AS A WHOLE, MAKES OVER THE PRIOR ART.**

The inventions listed as Groups I, II and III do not relate to a single general inventive concept under PCT Rule 13.1 because the invention AS CLAIMED is known in the art, since groups I and II, while drawn to the same enzyme are drawn to two distinct forms, namely free and immobilized enzymes. Furthermore Group III includes an additional oxygen component to their composition that is not found in ascorbate oxidase compositions of groups I and groups II. Finally U.S. Patent # 6,165,500 teaches a composition of ascorbic acid (see col 25, line 42), ascorbic oxidase (see col 45, line 6) that inherently utilizes oxygen and at least one cosmetic ingredient such as phosphate buffer (col 68, table) and thus no special technical feature unites these inventions in a category.

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(1) a product and a process specially adapted for the manufacture of said product; or

(2) a product and a process of use of said product; or

(3) a product, a process specially adapted for the manufacture of the said product, and a use of the said product; or

(4) a process and an apparatus or means specifically designed for carrying out said process; or

(5) a product, a process specially adapted for the manufacture of the said product and an apparatus or means specifically designed for carrying out said process.

(c) If an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b) of this section, unity of invention might not be present.

The Groups I and IV-VI, of this invention fall within category (3), a product, a process specially adapted for the manufacture of the said product, and a use of the said product.

PCT Rule 13.2 does not provide for multiple compositions or multiple methods of use within a single application. Thus, the first appearing composition is combined with a corresponding first method of use and the additional composition and method claims

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each constitute a separate group.

In addition to the requirement that a group of inventions must belong to one of the specific categories provided by PCT Rule 13.2, the inventions in the category, such as a composition and a method of use of the composition, must have a special technical feature that unites them. See Patent Rules 1.475, where a special technical feature is a contribution OVER THE PRIOR ART.

The expression "special technical feature" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art (PCT Rule 13.2). Thus, a feature found in the prior art cannot be considered to be a special technical feature.

Thus, the inventions listed as Groups I and IV-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features as demonstrated above. Since the composition AS CLAIMED is known in the art, and no special technical feature unites these inventions in a category.

#### ELECTION OF SPECIES

In addition if Group I is elected, a further election of species must be made. This application contains claims containing the following patentably distinct species which are described below:

The applicant must elect one origin of the enzyme in claim(s) 5 selected from the group consisting of EC 1.10.3.3, plant origin, *Arabidopsis*, *Brassica*, *Cucumis*, *Cucurbita*, *Myrothecium*, *Nicotiana*, *Oryza*, *Sinapis*, *Titicum*.

The applicant must elect one stabilizing substance in claim(s) 13 selected from a buffers, glycerol, polyhydroxy compounds, metal chelating agents, thiols, polyethylene glycol, nonreactive proteins and immobilization.

If applicant elects immobilization as the stabilizing substance from above, a further election of species is required, selected from the group listed in claim 15.

The applicant must elect one cosmetic ingredient for examination of claims 19 and 44 selected from the list of ingredients in claim 19 or 44.

If the applicant elects a wetting agent or emulsifier they must also elect a specific species from claims 37 or 38.

If the applicant elects a thickening agent they must also elect a specific species from claim 39.

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If the applicant elects an alcohol they must also elect a specific species from claim 40.

The species are independent or distinct because they do not belong to any art recognized group nor do they share a substantial structural feature. Art on one species does not render the others obvious.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention and if necessary the species to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thane Underdahl whose telephone number is (571) 272-9042. The examiner can normally be reached on Monday-Thursday 8:00 to 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thane Underdahl  
Art Unit 1651



Leon B. Lankford Jr  
Primary Examiner  
Art Unit 1651